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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

US PATENT & TRADEMARK  
OFFICE

APPLICANT: Grieve, et al. )  
SERIAL NUMBER: 09/996,622 ) Group Art Unit: 1754  
FILED: November 29, 2001 ) Examiner: Langel  
FOR: REFORMER SYSTEM PROCESS )

**REQUEST FOR REFUND**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: Refund Section, Accounting Division, Office of Finance

Sir:

In accordance with the provisions under 37 C.F.R. § 1.28(a), applicants hereby request a refund of \$86.00 which was charged to Deposit Account 06-1130 on August 26, 2005. On February 18, 2005, Applicants filed an Amendment. The Amendment contained a total number of 26 claims, 3 of them being independent claims. The deposit account, 06-1130, was charged for 4 independent claims. The U.S.P.T.O. accessed the deposit account for a fee of \$86.00 for the extra claim on August 26, 2005 (see enclosed copy of August monthly statement of deposit account 06-1130).

Since there were only a total of three independent claims, a refund of the fee for the extra independent claim is hereby respectfully requested.

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If there are charges with respect to this request, or otherwise, please charge them to

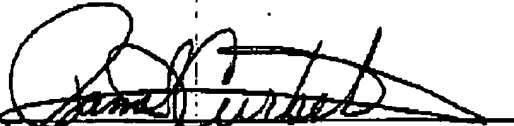
Deposit Account No. 06-1130.

Respectfully submitted,

Malcom James Grieco, et al.

CANTOR COLBURN LLP

Applicants' Attorneys

By: 

Pamela J. Cyrbe

Registration No. 34,676

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## Deposit Account Statement

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08/28 101	11209113	KOT-0182	1311	\$200.00	\$22,872.00
08/28 102	11209113	KOT-0182	1202	\$550.00	\$22,322.00
08/28 104	11208175	KCL-0005	8021	\$40.00	\$22,282.00
08/28 105	11207451	21C-0231	8021	\$40.00	\$22,242.00
08/28 118	11208174	03-004/PES-0192-C	8021	\$40.00	\$22,202.00
08/28 118	11208904	00122-C2	1011	\$300.00	\$21,902.00
08/28 119	11209255	YPL-0163	1011	\$300.00	\$21,602.00
08/28 119	11208904	00122-C2	1111	\$500.00	\$21,102.00
08/28 120	11209255	YPL-0163	1111	\$500.00	\$20,602.00
08/28 120	11208904	00122-C2	1311	\$200.00	\$20,402.00
08/28 121	11209255	YPL-0163	1311	\$200.00	\$20,202.00
08/28 121	11208903	KCL-0004	1011	\$300.00	\$19,902.00
08/28 122	11208903	KCL-0004	1111	\$500.00	\$19,402.00
08/28 123	11208903	KCL-0004	1311	\$200.00	\$19,202.00
08/28 124	10430923	KAW-0035	1251	\$120.00	\$19,082.00
08/28 142	10638780	KOY-0009	1501	\$1,400.00	\$17,682.00
08/28 143	10638780	KOY-0009	1504	\$300.00	\$17,382.00
08/28 144	10638780	KOY-0009	8001	\$15.00	\$17,367.00
08/28 152	11208099	KOT-0183	1011	\$300.00	\$17,067.00
08/28 153	11208099	KOT-0183	1111	\$500.00	\$16,567.00
08/28 154	11208099	KOT-0183	1311	\$200.00	\$16,367.00
08/28 233	11171828	PRM-0047	1051	\$130.00	\$16,237.00
08/28 1	11014372	00250CON (BLL-0027-C)	1814	\$130.00	\$16,107.00
08/28 1	10521003	CMT-0007	1632	-\$500.00	\$15,607.00
08/28 1	11010852	181330-1	1483	\$200.00	\$15,407.00
08/28 2	10521003	CMT-0007	1642	\$400.00	\$15,007.00
08/28 3	09996622	DP-304989	1201	\$88.00	\$15,921.00
08/28 4	09822504	BS01-020	1801	\$790.00	\$15,131.00
08/28 4	09996622	DP-304988	1202	\$50.00	\$15,081.00
08/28 10	10493198	WAL-0018	1201	\$600.00	\$14,481.00
08/28 11	10493198	WAL-0018	1253	\$1,020.00	\$13,461.00
08/28 14	2511798	FIS-0023-A	8521	\$40.00	\$13,421.00
08/28 23	11210544	21C-0240	1011	\$300.00	\$13,121.00
08/28 24	11210544	21C-0240	1111	\$500.00	\$12,621.00
08/28 25	11210544	21C-0240	1311	\$200.00	\$12,421.00
08/28 26	11210544	21C-0240	1202	\$600.00	\$11,821.00
08/28 29	E-REPLENISHMENT		9203	-\$25,000.00	\$36,821.00
08/28 35	11210547	KT-0184	1011	\$300.00	\$36,521.00
08/28 36	11210547	KT-0184	1111	\$500.00	\$36,021.00
08/28 37	11210547	KT-0184	1311	\$200.00	\$35,821.00
08/28 49	10755863	INF-0010	2252	\$225.00	\$35,596.00
08/28 69	09769829	SWR-0037	1251	\$120.00	\$35,476.00
08/28 87	11155230	RIK-0003	2051	\$65.00	\$35,411.00
08/28 127	11210932	DP-309411	1011	\$300.00	\$35,111.00
08/28 128	11210932	DP-309411	1111	\$500.00	\$34,611.00
08/28 129	11210932	DP-309411	1311	\$200.00	\$34,411.00
08/28 154	11208903	KCL-0004	8021	\$40.00	\$34,371.00
08/28 182	11146826	DP-313039	1011	\$300.00	\$34,071.00

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No: 09/996622

Filed: November 29, 2001

Attorney Docket No: DP-304989

APPLICANT: Malcolm J. Grieve

Group Art Unit: 3753

TITLE: Reformer System Process

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS: RCE, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on 9-18-2005.

  
Lowell M. Train

MS: RCE  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

AMENDMENT

Dear Sir:

Please consider this amendment that accompanies a Request for Continued Examination under 37 CFR 1.114,

09/996,622

## Claims:

1. (currently amended) A process for operating a reformer system, the process comprising:  
introducing ~~a gas mixture~~ to the reformer system a gas mixture comprising fuel and oxidant at a first gas mixture flow rate and a first oxidant:fuel ratio, and operating the reformer system at said first gas mixture flow rate and first oxidant:fuel ratio; and then  
increasing ~~a proportion of an~~ the oxidant:fuel ratio in the gas mixture and controlling ~~a reducing the gas mixture flow rate of the gas mixture; and~~  
reacting the gas mixture to form a reformat stream and to increase a temperature in the reformer system, wherein the temperature is effective to remove a contaminant from the reformer system.
2. (original) The process according to Claim 1, wherein controlling the flow rate of the gas mixture further comprising the steps of:  
monitoring a reformer system temperature;  
reducing the flow rate of the gas mixture when the temperature is greater than or equal to a first temperature;  
flowing the oxidant into the reformer system when the temperature is less than or equal to a second temperature; and  
reducing the flow rate of the oxidant when the temperature is greater than or equal to the first temperature; and  
increasing the flow rate of the oxidant into the reformer system when the temperature is less than or equal to a second temperature, which second temperature is less than the first temperature.
3. (canceled)

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4. (original) The process according to Claim 1, wherein the oxidant is selected from the group consisting of air, water, carbon dioxide, and combinations comprising at least one of the foregoing oxidants.

5. (original) The process according to Claim 1, wherein the contaminant comprises carbonaceous material.

6. (currently amended) The process according to Claim 1, wherein increasing a proportion of an the oxidant:fuel ratio in the gas mixture and controlling a reducing the flow rate of the gas mixture produces a peak operating temperature in the reformer system at a distance of less than about 10 millimeters from an inlet of a reformer zone.

7. (currently amended) The process according to Claim 1, wherein increasing a proportion of an the oxidant:fuel ratio in the gas mixture and controlling a reducing the flow rate of the gas mixture produces a peak operating temperature in the reformer system at a distance of less than about 7 millimeters from an inlet of a reformer zone.

8. (currently amended) The process according to Claim 1, wherein increasing a proportion of an the oxidant:fuel ratio in the gas mixture and controlling a reducing the flow rate of the gas mixture produces a peak operating temperature in the reformer system at a distance of less than about 5 millimeters from an inlet of a reformer zone.

9. (canceled)

10. (original) The process according to Claim 2, wherein reducing the flow rate of the oxidant comprises reducing the flow rate to zero.

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11. (currently amended) The process according to Claim 2, further comprising ~~repeatedly steps of increasing the flowing rate of~~ the oxidant into the reformer system and ~~then~~ reducing the flow of the oxidant until greater than or equal to about 80 percent of the contaminants present within the reformer system are removed.

12. (original) The process according to Claim 2, ~~wherein controlling further comprising repeated steps of increasing the flow rate of the gas mixture further comprises repeating flowing~~ the oxidant into the reformer system and ~~then~~ reducing the flow of the oxidant until the temperature is at a third temperature that remains at or below the second temperature.

13. (original) The process according to Claim 2, wherein monitoring the temperature comprises modeling a temperature profile using parameters selected from the group comprising a predetermined flow rate of the gas mixture, a measured flow rate of the gas mixture, an inlet temperature of the gas mixture prior to reacting the gas mixture to form a reformat stream, an estimate of an exit temperature, thermal losses from operating the reformer system, and combinations comprising at least one of the foregoing parameters.

14. (original) The process according to Claim 2, wherein the first temperature is less than or equal to about 1,000°C.

15. (original) The process according to Claim 6, wherein the peak operating temperature is at about 800°C to about 1,000°C.

16. (original) The process according to Claim 12, further comprising shutting down the reformer system when the temperature remains at or below the third temperature.

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17. (original) The process according to Claim 12, wherein, for each successive step of increasing the flow rate of oxidant into the reformer system, repeating flowing the oxidant into the reformer system comprises sequentially increasing the flow rate of the oxidant into the reformer system is higher than the flow rate of oxidant for each previous step of increasing the oxidant flow rate.

18. (original) The process according to Claim 12, wherein repeating flowing the oxidant into the reformer system and reducing the flow of the oxidant forms a periodic flow pattern.

19. (previously presented) A process for operating a reformer system, the process comprising:

introducing a gas mixture to the reformer system and contacting an oxidant in the gas mixture with a catalyst material disposed at an inlet to the reformer system to generate a reformat stream and to increase a temperature in the reformer system, wherein the temperature is effective to remove a contaminant from the reformer system;

monitoring an operating temperature of the reformer system;

increasing a proportion of the oxidant in the gas mixture and controlling a flow rate of the gas mixture to produce a peak operating temperature in the reformer system at a distance of less than or equal to about 10 millimeters from the inlet;

reducing the flow rate of a fuel in the gas mixture to zero and flowing the oxidant into the reformer system when the operating temperature is less than or equal to a first temperature; and

reducing the flow of the oxidant to zero when the operating temperature is greater than or equal to a second temperature, wherein the second temperature is greater than the first temperature.

20. (original) The process according to Claim 19, wherein the distance is less than or equal to about 7 millimeters.



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21. (original) The process according to Claim 19, wherein the distance is less than or equal to about 5 millimeters.

22. (previously presented) A process for operating a reformer system, the process comprising:

monitoring an operating temperature of the reformer system;

reducing a flow of a fuel in a gas mixture into the reformer system to zero when the operating temperature of the reformer system is greater than or equal to a first temperature;

flowing an oxidant into the reformer system when the operating temperature of the reformer system is less than or equal to a second temperature;

reducing the flow of the oxidant when the operating temperature is greater than or equal to the first temperature;

repeating flowing the oxidant into the reformer system and reducing the flow of the oxidant to zero until the operating temperature is at a third temperature that remains at or below the first temperature; and

shutting down the reformer system when the operating temperature remains at or below the third temperature.

23. (original) The process according to Claim 22, wherein reducing the flow rate of the gas mixture comprises reducing the flow rate to zero.

24. (original) The process according to Claim 22, wherein reducing the flow rate of the oxidant comprises reducing the flow rate to zero.

25. (previously presented) The process according to Claim 1, wherein the operating temperature is about 50°C to about 150°C greater than a normal operating temperature.

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26. (previously presented) The process according to Claim 25, wherein the normal operating temperature is about 750°C to about 950°C,

27. (new) The process according to Claim 12, wherein reducing the flow rate of the oxidant comprises reducing the flow rate to zero.

28. (new) The process according to Claim 13, wherein reducing the flow rate of the oxidant comprises reducing the flow rate to zero.

29. (new) The process according to Claim 13, wherein, for each successive step of increasing the flow rate of oxidant into the reformer system, the flow rate of the oxidant into the reformer system is higher than the flow rate of oxidant for each previous step of increasing the oxidant flow rate.

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Remarks

This amendment accompanies a Request for Continued Examination under 37 CFR 1.114, thereby withdrawing the appeal and reopening prosecution. The present amendment is made to more clearly define the present invention and distinguish from the cited art. The amendment is well-supported by the specification as originally filed, and Applicants respectfully request its entry without prejudice.

With respect to the Nataraj et al reference, Applicants respectfully submit that the reference does not teach or suggest Applicants' claimed invention of operating a reformer at a first gas mixture flow rate and oxidant:fuel ratio, and then removing a contaminant in the system by increasing the oxidant:fuel ration while reducing the gas mixture flow rate so as to increase the reformer temperature. Although the Nataraj et al reference teaches that the presence of steam (an oxidant) may be beneficial in preventing carbon deposition, there is nothing in the reference that suggests Applicants' claimed invention of increasing the oxidant:fuel ratio *and* decreasing overall gas mixture flow rate to increase temperature and remove contaminants. To the contrary, the Nataraj et al reference clearly teaches at col. 12, lines 51-52 that higher temperatures *favor* the formation of carbon via the cracking reaction (9), and thus *teaches away* from Applicants' claimed invention of increasing temperature to remove contaminants such as carbon. Accordingly, Applicants respectfully submit that their claimed invention is patentable over the cited art and request early favorable action.

Please charge any necessary fees, including any extension of time, or any other fee deficiencies to Delphi Technologies, Inc., Deposit Account No. 50-0831.

Respectfully Submitted:

  
Paul L. Marshall, Attorney  
Registration No: 31,178  
Phone: 248 813-1240  
FAX: 248-813-1211PLM:lt  
enclosures

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Day : Friday  
Date: 9/30/2005

Time: 17:14:11

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## Application Number Information

Application Number: 09/996622

Examiner Number: 60603 / LANCEL, WAYNE

Assignments

Filing or 371(c) Date: 11/29/2001

Group Art Unit: 1754

IFW/IMAGE

Effective Date: 11/29/2001

Class/Subclass: 252/373,000

Application Received: 11/30/2001

Lost Case: NO

Pat. Num./Pub. Num: /20020150532

Interference Number:

Issue Date: 00/00/0000

Unmatched Petition: NO

Date of Abandonment: 00/00/0000

L&amp;R Code: Secrecy Code:1

Attorney Docket Number: DP-304989 (DEP-0203)

Third Level Review: YES

Secrecy Order: NO

Status: 90/ALLOWED -- NOTICE OF ALLOWANCE NOT YET  
MAILED

Status Date: 09/20/2005

Confirmation Number: 5304

Oral Hearing: NO

Title of Invention: REFORMER SYSTEM PROCESS

Bar Code	PALM Location	Location Date	Charge to Loc	Charge to Name	Employee Name	Location
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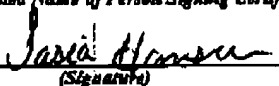
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PATENT

<b>CERTIFICATE OF TRANSMISSION BY FACSIMILE (37 CFR 1.8)</b> Applicant(s): <b>Grieve, et al.</b>			Docket No. <b>DP-304989</b>	
Application No. <b>09/996,622</b>	Filing Date <b>November 29, 2001</b>	Examiner <b>US PATENT &amp; TRADEMARK OFFICE</b>	Group Art Unit <b>1754</b>	
Invention: <b>REFORMER SYSTEM PROCESS</b>				
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<p>I hereby certify that this <u>Request for Refund (11 pages)</u>  <small>(Identify type of correspondence)</small></p> <p>is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No. <u>571-273-8300</u>)</p> <p>on <u>September 30, 2005</u>  <small>(Date)</small></p> <div style="text-align: right; margin-top: 20px;"> <u>Tasia Hansen</u>  <small>(Typed or Printed Name of Person Signing Certificate)</small>    <small>(Signature)</small> </div>				
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01 FC:1201 86.00 CR